



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

Dirk Kempthorne, Governor
Toni Hardesty, Director

January 6, 2006

Certified Mail No. 7004 1160 0005 8739 4854

Jon R. Anderson
City of Burley
P.O. Box 1090
Burley, ID 83318

RE: Facility ID No. 067-00022, City of Burley, Burley/Heyburn Industrial Park
Final Permit Letter

Dear Mr. Anderson:

The Idaho Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) Number P-040412 to the City of Burley for the ADI-BVF anaerobic digester located at the Burley/Heyburn Industrial Park, in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho).

This permit is based on your permit application received on April 4, 2005. This permit is effective immediately and replaces PTC No. P-040400, issued on July 12, 2004, the terms and conditions of which no longer apply. This permit does not release the City of Burley from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

A representative of the Twin Falls Regional Office will contact you regarding a meeting with DEQ to discuss the permit terms and requirements. DEQ recommends the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to call Bill Rogers at (208) 373-0502 to address any questions or concerns you may have with the enclosed permit.

Sincerely,

A handwritten signature in black ink, reading "Martin Bauer".

Martin Bauer, Administrator
Air Quality Division

MB/SYC/sd

Permit No. P-040412

Enclosures



**Air Quality
PERMIT TO CONSTRUCT**

**State of Idaho
Department of Environmental Quality**

PERMIT No.: P-040412

FACILITY ID No.: 067-00022

AQCR: 063

CLASS: SM80

SIC: 4952

ZONE: 12

UTM COORDINATE (km): 272.7, 4713.9

1. PERMITTEE

City of Burley

2. PROJECT

ADI-BVF Anaerobic Digester Flare System

3. MAILING ADDRESS

P.O. Box 1090

CITY

Burley

STATE

ID

ZIP

83318

4. FACILITY CONTACT

Mark Mitton

TITLE

City Administrator

TELEPHONE

(208) 878-2224

5. RESPONSIBLE OFFICIAL

Jon R. Anderson

TITLE

Mayor

TELEPHONE

(208) 878-2224

6. EXACT PLANT LOCATION

Burley/Heyburn Industrial Park, Burley City Limits, Highway 30 North

COUNTY

Cassia

7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Wastewater Treatment Facility

8. GENERAL CONDITIONS

This permit is issued according to IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require DEQ approval pursuant to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200, et seq.


**TONI HARDESTY, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL QUALITY**

DATE ISSUED: January 6, 2006

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Acronyms, Units, and Chemical Nomenclature

AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CO ₂	carbon dioxide
DEQ	Idaho Department of Environmental Quality
H ₂ S	hydrogen sulfide
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
O&M	operations and maintenance
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PTC	permit to construct
SIC	Standard Industrial Classification
SO ₂	sulfur dioxide
T/yr	tons per any consecutive 12-month period
UTM	Universal Transverse Mercator

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Permittee:	City of Burley	Facility ID No. 067-00022	Date Issued:	January 6, 2006
Location:	Burley, Idaho			

1. PERMIT TO CONSTRUCT SCOPE***Purpose***

- 1.1 The City of Burley has acquired the ADI Bulk Volume Fermenter (BVF) anaerobic digester facility located at the Burley/Heyburn Industrial Park. The City of Burley will use the ADI-BVF anaerobic digester to treat wastewater from cheese processing plants.
- 1.2 This PTC replaces PTC No. P-040400, Facility ID No. 067-00017, issued July 12, 2004, the terms and conditions of which shall no longer apply.

Regulated Sources

- 1.3 Table 1.1 lists all sources of emissions that are regulated in this PTC.

Table 1.1 REGULATED EMISSIONS SOURCES

Permit Sections	Source Description	Emissions Control(s)
2	<u>ADI-BVF ANAEROBIC DIGESTER FLARES</u> The ADI-BVF anaerobic digester, where wastewater is retained and acted upon by bacteria, is located at City of Burley, Burley/Heyburn Industrial Park. Biogas byproducts (CH ₄ , CO ₂ and H ₂ S) collected from under the cover of the digester are burned in a flare system. The facility includes two flares, one being a backup. Only one flare operates at a time.	None

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2. ADI-BVF ANAEROBIC DIGESTER FLARES**2.1 Process Description**

Pretreated wastewater from cheese processing plants is retained and biologically degraded in the ADI-BVF anaerobic digester. The biogas byproducts created include methane (CH₄), carbon dioxide (CO₂), and hydrogen sulfide (H₂S). The biogas composition is approximately 55% - 60% CH₄, 40% - 45% CO₂, and less than 1% H₂S. All biogas byproducts are collected from under the cover of the digester and burned by the flare system. The flare system consists of two flares, one being a backup. Only one flare operates at a time. The criteria pollutants emitted from the biogas flares are PM₁₀, SO₂, CO, NO_x, and VOC.

2.2 Emissions Control Description

The emissions from the flares are uncontrolled.

Emissions Limits**2.3 Visible Emissions Limit**

The permittee shall not discharge any air pollutant into the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

2.4 Particulate Matter Emissions Limits for Incinerators

Particulate matter emissions from each of the flares shall not exceed 0.2 pounds per 100 pounds of biogas combusted, in accordance with IDAPA 58.01.01.786.

2.5 Sulfur Dioxide Emissions Limit

The sulfur dioxide emissions from the ADI-BVF digester flare stacks shall not exceed 99 tons per any consecutive 12-month period (T/yr).

2.6 Odors

The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution as required in IDAPA 58.01.01.775-776.

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Operating Requirements**2.7 Pilot Flame**

The ADI-BVF digester flare system shall be operated with a pilot flame present at all times while receiving off-gasses due to the operation of the digester. In the event of the pilot flame-out, the permittee shall follow a standard operating procedure to re-ignite the pilot flame as expeditiously as practicable. No biogas shall be sent to the flare system while the pilot flame is out. The permittee shall notify DEQ within 24 hours of a pilot flame-out. The permittee shall maintain records onsite of the time and duration of all pilot flame-out periods. A copy of standard operating procedure shall be kept on site and shall be made available to DEQ representatives upon request.

2.8 Odor Complaints

The permittee shall maintain records of all odor complaints received. If the complaint has merit, the permittee shall take appropriate corrective action as expeditiously as practicable. The records shall include, at a minimum, the date each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

2.9 Reasonable Control of Fugitive Emissions

All reasonable precautions shall be taken to prevent particulate matter (PM) from becoming airborne in accordance with IDAPA 58.01.01.650-651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of PM. Some of the reasonable precautions include, but are not limited to, the following:

- Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands.
- Application, where practical, of asphalt, oil, water, or suitable chemicals to, or covering of, dirt roads, material stockpiles, and other surfaces which can create dust.
- Installation and use, where practical, of hoods, fans, and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations.
- Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts.
- Paving of roadways and their maintenance in a clean condition, where practical.
- Prompt removal of earth or other stored material from streets, where practical.
- Records of this information shall remain onsite for the most recent two-year period and shall be made available to DEQ representatives upon request

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2.10 Process Stream Restriction

The facility is permitted to treat pretreated wastewater from cheese processing plants exclusively. The permittee shall request a permit modification or obtain DEQ approval prior to accepting wastewater to the digester other than that from cheese processing plants.

Monitoring and Recordkeeping Requirements

2.11 Pilot Flame Monitoring

Within 60 days of issuance of this permit, the permittee shall have installed and maintain and operate a thermocouple or similar device that detects the presence of a pilot flame in the biogas flare system.

2.12 Performance Test

- 2.12.1 Whenever a new cheese plant begins to discharge its pre-treated wastewater to the ADI-BVF anaerobic digester, the permittee shall conduct a performance test in accordance with the requirements set forth in IDAPA 58.01.01.157 and Permit Conditions 2.12.2 and 2.12.3 to estimate SO₂ emissions from the ADI-BVF anaerobic digester to demonstrate compliance with Permit Condition 2.5. The applicant shall estimate SO₂ emissions from the digester flare by assuming that 80% of H₂S from the digester is oxidized/combusted to form SO₂. The emissions rate of H₂S from the digester in pound per hour shall be estimated. The details on which parameters will be measured and how H₂S emissions from the digester in pound per hour are calculated shall be provided in the performance test protocol required in Permit Condition 2.12.3.
- 2.12.2 Each performance test shall be conducted within 60 days after a new cheese plant achieves its maximum production rate, but not later than 180 days after initial startup of the new cheese plant unless an extension is granted by DEQ. At no time shall testing exceed 365 days after initial startup of a new cheese plant.
- 2.12.3 The permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test or shorter time period as provided in a permit, order, consent decree, or by DEQ approval. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests such testing not be performed on weekends or state holidays.

Prior to conducting any performance test, the permittee shall submit in writing to DEQ, at least 30 days in advance, the following for approval:

- The type of method to be used
- Any extenuating or unusual circumstances regarding the proposed test
- The proposed schedule for conducting and reporting the test

The permittee shall submit a compliance test report for the respective test to DEQ within 30 days following the date in which a compliance test required by this permit is concluded. The compliance test report shall include all process operating data collected during the test period as well as the test results, raw test data, and associated documentation, including any approved test protocol.

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The proposed test date(s), test date rescheduling notice(s), compliance test report, and all other correspondence shall be sent to the following address:

Air Quality Permit Compliance
Department of Environmental Quality
Twin Falls Regional Office
1363 Filmore
Twin Falls, ID 83301
Phone: (208) 736-2190 Fax: (208) 736-2194

2.13 Monitoring Requirements Re-evaluation

The permittee shall contact DEQ and submit information to DEQ to re-evaluate the monitoring requirements within 60 days when the performance test shows that the SO₂ emissions rate is equal or greater than 80 tons per year or 80% of the major source threshold of 100 tons per year. The monitoring requirements in this PTC shall be revised as needed.

2.14 O&M Manual

Within 60 days after the flare system starts its normal operation, the permittee shall have developed an O&M manual in accordance with manufacturer specifications for the flare system. The flare system shall be operated in accordance within manufacturer and O&M manual specifications. The O&M manual shall address the operation, maintenance, and repair of the flare system and shall include at a minimum, the following: a general description, normal operating conditions (including operating ranges for the parameters) and procedures, methods of preventing malfunctions, appropriate corrective actions to be taken, and provisions for quarterly inspections. The normal operating conditions, including operating ranges for the parameters, and procedures in the O&M manual may be revised based on most recent source test data. The O&M manual shall be maintained on site at all times and shall be made available to DEQ representatives upon request. A copy of the manual shall be submitted to DEQ's Twin Falls Regional Office at the following address whenever the manual is developed and/or revised:

Air Quality Permit Compliance
Department of Environmental Quality
Twin Falls Regional Office
1363 Filmore Street
Twin Falls, ID 83301

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3. PERMIT TO CONSTRUCT GENERAL PROVISIONS

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.
2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
3. The permittee shall allow the Director, and/or the authorized representative(s), upon the presentation of credentials:
 - To enter, at reasonable times, upon the premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
 - At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and require stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the Director.
4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
5. The permittee shall notify DEQ, in writing, of the required information for the following events within 5 working days after occurrence:
 - Initiation of Construction - Date
 - Completion/Cessation of Construction - Date
 - Actual Production Startup - Date
 - Initial Date of Achieving Maximum Production Rate - Production Rate and Date
6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

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All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

7. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
8. In accordance with IDAPA 58.01.01.123, all documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.